

Title (en)
Synchronous induction motor

Title (de)
Synchroner Induktionsmotor

Title (fr)
Moteur à induction synchrone

Publication
EP 1746706 A3 20070725 (EN)

Application
EP 06018387 A 20020311

Priority

- EP 02251698 A 20020311
- JP 2001099883 A 20010330
- JP 2001099938 A 20010330
- JP 2001100033 A 20010330
- JP 2001100129 A 20010330
- JP 2001100198 A 20010330
- JP 2001100263 A 20010330
- JP 2001161521 A 20010530

Abstract (en)
[origin: EP1246348A2] A synchronous induction motor (2) features improved assemblability of a rotor (5), significantly reduced production cost, and improved operation performance of the motor. A plurality of die-cast secondary conductors (5B) is provided around a rotor yoke (5A) constituting the rotor of the synchronous induction motor (2). End rings (68,69) are die-cast integrally with the secondary conductors (5B) on the peripheral portions of both end surfaces of the rotor yoke (5A). Permanent magnets (31) are inserted into slots (44) formed such that they penetrate the rotor yoke. The openings of both ends of the slots (44) are closed by a pair of end surface members (66,67) formed of a non-magnetic constituent. One (67) of the end surface members (66,67) is secured to the rotor yoke by one (69) of the end rings (68,69) when the secondary conductors (5B) and the end rings (68,69) are formed. The other end surface member (66) is secured to the rotor yoke (5A) by a fixture (66A). <IMAGE>

IPC 8 full level
F04B 39/00 (2006.01); **H02K 1/22** (2006.01); **F04B 35/04** (2006.01); **F04B 49/10** (2006.01); **F04C 23/00** (2006.01); **F04C 28/28** (2006.01); **H02K 1/27** (2006.01); **H02K 3/52** (2006.01); **H02K 5/22** (2006.01); **H02K 7/04** (2006.01); **H02K 7/14** (2006.01); **H02K 15/03** (2006.01); **H02K 17/16** (2006.01); **H02K 17/22** (2006.01); **H02K 19/00** (2006.01); **H02K 21/00** (2006.01); **H02K 21/14** (2006.01); **H02K 21/46** (2006.01); **H02P 1/44** (2006.01); **H02K 17/26** (2006.01)

CPC (source: EP US)
F04B 35/04 (2013.01 - EP US); **F04B 49/10** (2013.01 - EP US); **F04C 23/008** (2013.01 - EP US); **F04C 28/28** (2013.01 - EP US); **H02K 1/276** (2013.01 - EP US); **H02K 1/2766** (2013.01 - EP US); **H02K 7/04** (2013.01 - EP US); **H02K 21/46** (2013.01 - EP US); **H02P 1/445** (2013.01 - EP US); **F04B 2203/0205** (2013.01 - EP US); **F04C 2270/07** (2013.01 - EP US); **F04C 2270/19** (2013.01 - EP US)

Citation (search report)

- [X] US 4139790 A 19790213 - STEEN CHARLES R
- [XY] US 4250424 A 19810210 - MIYASHITA KUNIO [JP], et al
- [Y] EP 0622885 A2 19941102 - SANYO ELECTRIC CO [JP]
- [XY] US 4403161 A 19830906 - MIYASHITA KUNIO [JP], et al
- [Y] JP H02246748 A 19901002 - MATSUSHITA ELECTRIC IND CO LTD
- [X] US 4454438 A 19840612 - YAMASHITA SEIZI [JP], et al
- [A] US 4144469 A 19790313 - MIYASHITA KUNIO, et al
- [A] JP S5752359 A 19820327 - HITACHI LTD

Cited by
CN103986292A; CN103326630A; WO2009021303A3

Designated contracting state (EPC)
DE ES FR GB IT PT

DOCDB simple family (publication)
EP 1246348 A2 20021002; EP 1246348 A3 20031008; EP 1246348 B1 20110504; DE 60239908 D1 20110616; EP 1746706 A2 20070124; EP 1746706 A3 20070725; EP 1746706 B1 20110706; EP 1750347 A2 20070207; EP 1750347 A3 20070502; EP 1750347 B1 20110615; EP 1750348 A2 20070207; EP 1750348 A3 20070502; ES 2362171 T3 20110629; PT 1246348 E 20110601; PT 1746706 E 20110817; PT 1750347 E 20110801; US 2002140309 A1 20021003; US 2004084984 A1 20040506; US 2005253474 A1 20051117; US 7102264 B2 20060905

DOCDB simple family (application)
EP 02251698 A 20020311; DE 60239908 T 20020311; EP 06018387 A 20020311; EP 06018388 A 20020311; EP 06018389 A 20020311; ES 02251698 T 20020311; PT 02251698 T 20020311; PT 06018387 T 20020311; PT 06018388 T 20020311; US 10804702 A 20020328; US 69286503 A 20031027; US 90115304 A 20040729